

# PATENT COOPERATION TREATY

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From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

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10th Floor  
FI-00100 Helsinki  
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**PCT**

## WRITTEN OPINION OF THE INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

(PCT Rule 66)

Date of mailing  
(day/month/year)

29.06.2005

Applicant's or agent's file reference  
800293WO

**REPLY DUE**

**within 2 month(s)**  
from the above date of mailing

International application No.  
PCT/FI2004/000331

International filing date (day/month/year)  
01.06.2004

Priority date (day/month/year)  
06.06.2003

International Patent Classification (IPC) or both national classification and IPC  
G06F17/30

Applicant  
TIETOENATOR OYJ

1. ☒ The written opinion established by the International Searching Authority:  
☒ is ☐ is not  
considered to be a written opinion of the International Preliminary Examining Authority
2. This first report contains indications relating to the following items:
  - ☒ Box No. I Basis of the opinion
  - ☒ Box No. II Priority
  - ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
  - ☐ Box No. IV Lack of unity of invention
  - ☒ Box No. V Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
  - ☐ Box No. VI Certain documents cited
  - ☐ Box No. VII Certain defects in the international application
  - ☐ Box No. VIII Certain observations on the international application
3. The applicant is hereby **invited to reply** to this opinion.

**When?** See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(e).

**How?** By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

**Also:** For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4bis. For an informal communication with the examiner, see Rule 66.6. For an additional opportunity to submit amendments, see Rule 66.4.

**If no reply is filed,** the international preliminary examination report will be established on the basis of this opinion.
4. The final date by which the international preliminary report on patentability (Chapter II of the PCT) must be established according to Rule 69.2 is: 06.10.2005

Name and mailing address of the international preliminary examining authority:



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WRITTEN OPINION OF THE INTERNATIONAL  
PRELIMINARY EXAMINING AUTHORITY

10/559386

International application No.  
PCT/FI2004/000331

~~IAP16 Rec'd PCT/PTO 06 DEC 2005~~

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This opinion is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
    - ☐ international search (under Rules 12.3 and 23.1(b))
    - ☐ publication of the international application (under Rule 12.4)
    - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements** of the international application, this opinion is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed")*:

Description, Pages

1-22 as originally filed

Claims, Numbers

1-28 received on 05.04.2005 with letter of 05.04.2005

Drawings, Sheets

1-8 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
    - ☐ the description, pages
    - ☐ the claims, Nos.
    - ☐ the drawings, sheets/figs
    - ☐ the sequence listing (*specify*):
    - ☐ any table(s) related to sequence listing (*specify*):
  4. ☐ This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
    - ☐ the description, pages
    - ☐ the claims, Nos.
    - ☐ the drawings, sheets/figs
    - ☐ the sequence listing (*specify*):
    - ☐ any table(s) related to sequence listing (*specify*):

**WRITTEN OPINION OF THE INTERNATIONAL  
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International application No.  
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**Box No. II Priority**

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1. ☒ This opinion has been established as if no priority had been claimed due to the failure to furnish within the prescribed time limit the requested:  
☒ copy of the earlier application whose priority has been claimed (Rule 66.7(a)).  
☐ translation of the earlier application whose priority has been claimed (Rule 66.7(b)).
2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rule 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
3. Additional observations, if necessary:

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**Box No. V Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	1-28
Inventive step (IS)	Yes: Claims	
	No: Claims	1-28
Industrial applicability (IA)	Yes: Claims	1-28
	No: Claims	

2. Citations and explanations:

**see separate sheet**

**WRITTEN OPINION OF THE INTERNATIONAL  
PRELIMINARY EXAMINING AUTHORITY  
(SEPARATE SHEET)**

International application No.

PCT/FI2004/000331

**AP16 Rec'd PCT/PTO 06 DEC 2005**

**Re Item V.**

**1.0 The following document is referred to in this communication:**

D1: SA LIN ET AL: "Integrating a heterogeneous distributed data environment with a database specific ontology" PROCEEDINGS OF THE ISCA 14TH INTERNATIONAL CONFERENCE PARALLEL AND DISTRIBUTED COMPUTING SYSTEMS INT. SOC. COMPUT. & THEIR APPLICATIONS - ISCA CARY, NC, USA, 2001, pages 430-435, XP002297454 ISBN: 1-880843-39-0

1.1 Claims 1-28 are not novel (Article 33(2) PCT).

1.2 Claims 1-28 are not inventive (Article 33(3) PCT).

1.3 Claims, 1-28, are industrially applicable (Article 33(4) PCT).

1.4 The amended claims 1, 21, 26 and 28 contain subject-matter which was not in any previous filing of the application and has therefore been added. In particular the additional feature of taking into account of identical characters in the synonym candidate and in the value of the data field has been added. Therefore, the feature shall not be considered for the written opinion.

Furthermore, no support has been identified for the feature that the counterparts are searched for after determining synonym candidates. Therefore, this feature shall also not be considered for the written opinion.

**2.0 Novelty (Article 33(2) PCT).**

2.1 Document D1, which is considered to represent the most relevant state of the art, discloses the same problem (Page 431, Left Column, Last Paragraph - Right Column, First Paragraph) of finding synonymous information and discloses all the features of claim 1 (the references in parenthesis applying to this document):

- A method of processing a data record for finding a counterpart in a reference data set (Page 433, Left Column, Last Paragraph, "set of search terms". Note: A set of search terms is a data record and a database contains a reference data set);
- Determining in the data record a value of a data field, the data field representing an identifier (Page 433, Right Column, Third Paragraph, "query node". Note: A query node is a data field of the data record which represents an identifier);
- Determining from a set of predetermined identifier values at least one synonym candidate for the value of the data field (Page 433, Right Column, Third Paragraph, "synonym edges");
- Determining if a synonym candidate and the value of the data field fulfill a predetermined synonym acceptance criterion, and if the predetermined synonym acceptance criterion is fulfilled, associating the value of the data field and the synonym candidate as synonymous (Page 433, Right Column, Third Paragraph, "threshold");
- Searching for a counterpart for the data record by comparing to entries of the reference data set the value of the data field and/or synonym associated with the value of the data field (Page 433, Right Column, Sixth Paragraph, "generate required queries". Note. This implies that the generated required queries contain the counterpart terms which are implicitly searched for within the database).

2.1.1 The subject-matter of claim 1 is therefore not novel (Article 33(2) PCT).

2.2 Since Independent Claims 21, 26 and 28 are rewordings of the same features, the same objection applies mutatis mutandis. Therefore, claims 21, 26 and 28 are also not novel (Article 33(2) PCT).

2.4 Dependent claims 2 - 20, 22 - 25 and 27 are also disclosed in D1 and are thus also not novel (Article 33(2) PCT).

2.5 Therefore, Claims 1 - 28 are not new according to Article 33(2) PCT.

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(SEPARATE SHEET)**

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**3.0 Inventive Step (Article 33(3) PCT).**

3.1 Since Claims 1 - 28 are not new (cf, §2.5), claims 1 - 28 are therefore also not inventive (Article 33(3) PCT).

**4.0 Industrial Applicability (Article 33(4) PCT).**

4.1 Claims 1-28 fall within the technical field of Query Processing and are thus Industrially Applicable.